



Low-Wage Jobs in Colorado are Growing, Putting More Pressure on Taxpayers

Jobs that pay too little for people to get by are growing as a share of Colorado's economy and the wages those jobs pay are shrinking. That's not only bad for people in those jobs and for the economy as a whole. It also means many employers are getting a free ride as taxpayers foot the bill for public assistance workers need when they aren't paid enough to make ends meet.

From 2000 to 2013, the 20 percent of Colorado workers making the least saw their pay drop by 8 percent when adjusted for inflation. This has resulted in a greater portion of the Colorado labor force working in low-wage jobs. In this report, we define a low-wage job in today's economy and discuss the demographics of workers in those low-paying jobs both by occupation group and industry. We also provide new data on the costs to the state of providing public support for employees working in jobs that pay low wages.

An analysis of wage and job data by Colorado Fiscal Institute found that:

- About 600,000 Coloradans -- just over a quarter of the state's workers -- have jobs paying less than \$12 an hour.
- These low-wage jobs are a growing portion of the Colorado economy: 26.2 percent in 2013 compared to 23.7 percent in 2001.
- Industries that pay low wages make up a growing portion of Colorado's economy
- The cost to Colorado taxpayers of providing healthcare to low-paid workers because their employers don't provide insurance and they can't afford it on their own is about \$304 million a year.
- The pay of workers in low-wage occupations in Colorado has not kept up with inflation; its purchasing power is down about 8 percent since 2001.
- Women and minorities are more likely to be employed in low-wage jobs.
- Most Colorado workers in low-wage jobs are adults; only 15 percent are under age 20.

What are low-wage jobs in Colorado?

For the purposes of this report, low-wage jobs are those paying less than what a full-time worker would need to live above the federal poverty line for a family of four. That annual threshold was \$23,850 in 2014, which translated to an hourly wage of about \$12 an hour.

More than 600,000 Coloradans — 26.2 percent of workers — have jobs classified as low-wage by this definition.ⁱ

Workers in Low-Wage Jobs

Women are more likely to be employed in low-wage jobs than are men in Colorado. Although they make up less than 50 percent of all workers, females fill 54 percent of all low-wage jobs in Colorado. Among Colorado men, 24.1 percent have low-wage jobs. For women the share rises to 31.5 percent.

Age of Low-Wage Workers in Colorado	
Under 20	15%
21 to 30	35%
31 to 40	14%
41 to 50	12%
50 and over	23%
<i>Source: CFI analysis of 2013 ACS PUMS</i>	

Figure 1

Low-wage jobs are mostly held by adults. National estimates indicate that more than 88 percent of low-wage workers are older than 20, and the average age of a minimum wage job worker is 35.ⁱⁱ In Colorado, 85 percent of low-wage jobs are held by workers older than 20.

Low-Wage Occupations

There are many occupations in Colorado where at least half of all workers make less than \$12 an hour. These low-wage occupational groups employ 42.1 percent of Coloradans. Minorities and women are more likely to be employed in low-wage job groups: 54 percent of black workers and 51 percent of Hispanic workers are employed in these jobs. There is significant gender split as well: 48 percent of working Colorado women are employed in low-wage job groups compared to 37 percent of working men.

Percentage Working in Colorado Low-wage Occupational Groups*	
Men	37.3%
Women	47.9%
White	40.0%
Black or African American	54.1%
Asian	38.7%
Hispanic and Latino	51.5%
All Colorado	42.3%
<i>Source: American Community Survey 2013</i>	
*Service, Food Prep, Admin Support, Sales, Personal Care, Transportation	

Figure 2

The most common low-wage jobs involve service work that benefits all Coloradans every day: retail sales, cashiers, personal care aides, waiters/waitresses, cooks and food service workers. Figure 3 shows the top 24 low-wage occupations in Colorado by employment and the wages of the 50th and 25th percentile earners in each occupation. For example, 50 percent of retail salespersons in Colorado make less than \$10.79 an hour.

Table 3: Top 24 Low-Wage Occupations in Colorado 2013

Major Occupation Group	Common Job	Total Employment	Hourly Wage		Annual Wage	
			25th	Median	25th	Median
Personal Care and Service	Personal Care Aides	18,290	\$ 8.78	\$ 9.81	\$ 18,270	\$ 20,410
	Counter and Rental Clerks	10,370	\$ 8.96	\$ 11.33	\$ 18,640	\$ 23,570
	Childcare Workers	7,620	\$ 8.99	\$ 10.66	\$ 18,700	\$ 22,180
	Hairdressers	6,570	\$ 9.24	\$ 11.21	\$ 19,220	\$ 23,310
	Recreation Workers	6,050	\$ 9.56	\$ 11.63	\$ 19,880	\$ 24,200
	Amusement and Recreation Attendants	5,070	\$ 8.37	\$ 8.95	\$ 17,400	\$ 18,620
Food Preparation and Serving Related	Combined Food Preparation and Serving Workers	61,380	\$ 8.32	\$ 8.85	\$ 17,300	\$ 18,410
	Waiters and Waitresses	48,090	\$ 8.33	\$ 8.89	\$ 17,340	\$ 18,490
	Cooks, Restaurant	24,670	\$ 9.36	\$ 10.93	\$ 19,460	\$ 22,740
	Food Preparation Workers	10,240	\$ 8.89	\$ 10.33	\$ 18,500	\$ 21,480
	Bartenders	9,430	\$ 8.35	\$ 8.92	\$ 17,370	\$ 18,550
	Hosts and Hostesses	8,980	\$ 8.48	\$ 9.17	\$ 17,630	\$ 19,070
	Dishwashers	7,520	\$ 8.40	\$ 9.02	\$ 17,470	\$ 18,760
	Dining Room and Cafeteria Attendants	7,440	\$ 8.31	\$ 8.83	\$ 17,280	\$ 18,370
	Cooks, Fast Food	5,920	\$ 8.33	\$ 8.87	\$ 17,320	\$ 18,450
	Food Servers, Non restaurant	5,870	\$ 8.73	\$ 10.14	\$ 18,160	\$ 21,100
Office/Admin Support	Hotel, Motel, and Resort Desk Clerks	5,060	\$ 9.04	\$ 10.48	\$ 18,800	\$ 21,800
Healthcare Support	Home Health Aides	10,360	\$ 9.37	\$ 11.16	\$ 19,500	\$ 23,210
Sales	Retail Salespersons	80,460	\$ 9.03	\$ 10.79	\$ 18,790	\$ 22,450
	Cashiers	52,420	\$ 8.59	\$ 9.42	\$ 17,860	\$ 19,590
	Telemarketers	7,500	\$ 9.45	\$ 11.39	\$ 19,660	\$ 23,690
Transportation and Material Moving	Driver/Sales Workers	8,860	\$ 8.63	\$ 9.74	\$ 17,950	\$ 20,250
Building and Grounds Cleaning and Maintenance	Janitors and Cleaners	32,890	\$ 9.07	\$ 11.00	\$ 18,860	\$ 22,880
	Maids and Housekeeping Cleaners	17,290	\$ 8.69	\$ 9.79	\$ 18,080	\$ 20,360

Source: Occupational Employment Statistics from BLS

The pay in many low-wage jobs used to be higher

Over time, as wages have fallen relative to the cost of living, a greater portion of each occupation has slipped into the low-wage category. In 2013, 26.2 percent of all Colorado jobs were low-wage, compared to 23.7 percent in 2001.

Figure 4: Change in Low-Wage Work from 2001 to 2013

Occupations	Employment			Median Wage			Share of Jobs Below \$12/Hr*	
	2001	2013	Change	2001	2013	Change	2001	2013
Personal Care Aides	5,810	18,290	215%	\$ 10.21	\$ 9.81	-4%	81%	96%
Combined Food Preparation and Serving Workers	30,610	61,380	101%	\$ 9.32	\$ 8.85	-5%	93%	100%
Food Servers, Nonrestaurant	3,570	5,870	64%	\$ 11.11	\$ 10.14	-9%	58%	69%
Childcare Workers	4,870	7,620	56%	\$ 9.85	\$ 10.66	8%	84%	63%
Home Health Aides	6,790	10,360	53%	\$ 12.98	\$ 11.16	-14%	39%	58%
Counter and Rental Clerks	7,020	10,370	48%	\$ 10.44	\$ 11.33	9%	63%	55%
Driver/Sales Workers	6,170	8,860	44%	\$ 12.98	\$ 9.74	-25%	45%	58%
Amusement and Recreation Attendants	3,830	5,070	32%	\$ 9.88	\$ 8.95	-9%	84%	100%
Recreation Workers	4,590	6,050	32%	\$ 11.56	\$ 11.63	1%	53%	53%
Cooks, Restaurant	19,380	24,670	27%	\$ 12.16	\$ 10.93	-10%	48%	62%
Bartenders	7,450	9,430	27%	\$ 8.76	\$ 8.92	2%	79%	83%
Hosts and Hostesses	7,320	8,980	23%	\$ 9.52	\$ 9.17	-4%	90%	90%
Hotel, Motel, Desk Clerks	4,400	5,060	15%	\$ 11.72	\$ 10.48	-11%	55%	69%
Waiters and Waitresses	46,200	48,090	4%	\$ 8.41	\$ 8.89	6%	76%	100%
Janitors and Cleaners	32,140	32,890	2%	\$ 11.04	\$ 11.00	0%	59%	59%
Cashiers	51,510	52,420	2%	\$ 10.36	\$ 9.42	-9%	67%	80%
Maids and Housekeeping Cleaners	17,520	17,290	-1%	\$ 10.48	\$ 9.79	-7%	69%	79%
Retail Salespersons	82,620	80,460	-3%	\$ 11.21	\$ 10.79	-4%	55%	59%
Hairdressers, Hairstylists, and Cosmetologists	6,790	6,570	-3%	\$ 12.90	\$ 11.21	-13%	38%	55%
Dining Room and Cafeteria Attendants	8,090	7,440	-8%	\$ 8.62	\$ 8.83	2%	100%	100%
Food Preparation Workers	12,350	10,240	-17%	\$ 10.49	\$ 10.33	-2%	68%	70%
Dishwashers	10,530	7,520	-29%	\$ 9.61	\$ 9.02	-6%	100%	100%
Cooks, Fast Food	8,310	5,920	-29%	\$ 9.73	\$ 8.87	-9%	72%	100%
Telemarketers	11,100	7,500	-32%	\$ 11.69	\$ 11.39	-3%	52%	57%
Total	2,159,370	2,295,000	6%	\$ 17.92	\$ 18.04	1%	24%	26%

*\$9.43 in 2001 was equivalent to \$12.00 in 2013

Source: CFI analysis of Occupational Employment Statistics from the BLS

An illustrative example of the growth in low-wage jobs is food preparation and serving. While the total number of jobs in Colorado increased 6 percent from 2001 to 2013, the number of food preparation and serving jobs more than doubled. The median wage -- the level at which half make more and half make less -- fell by 5 percent. Today, 100 percent of the jobs in this occupation pay low wages.

Also, all fast food cooks and all waiters and waitresses in 2013 made less than \$12 an hour. In 2001, 73 percent of fast food cooks and 76 percent of waiters and waitresses made less than \$12 an hour, adjusted for inflation.

Wages at the bottom have fallen in real terms

Another way to understand what is happening to wages in Colorado is to divide workers into 10 equal groups in order to make comparisons. The results show a huge disparity between the top and the bottom. Among workers in the bottom one-tenth (those making less than 90 percent of Coloradans) wages fell to \$8.77 an hour in 2013 from \$9.55 in 2000-- an 8.2 percent decrease, adjusted for inflation. The wages of the group making less than 80 percent of Coloradans fell to \$10.59 an hour in 2013 from \$11.50 in 2000 -- a 7.9 percent drop. During the same period, the pay of Coloradans that make more than 90 percent of the state's workers increased by 16.5 percent.

While the economy experienced two significant recessions over this period, this cannot account for the drop in real wages of the low-wage workers. In fact, productivity has grown by more than 20 percent in Colorado since 2000 during the same period when wages for the lowest one-fifth of earners had fallen by roughly 8 percent.ⁱⁱⁱ Increased productivity historically translated into wage growth. The disconnect between wages and productivity is a recent trend.

Figure 5: Change in Real Wages by Decile in CO

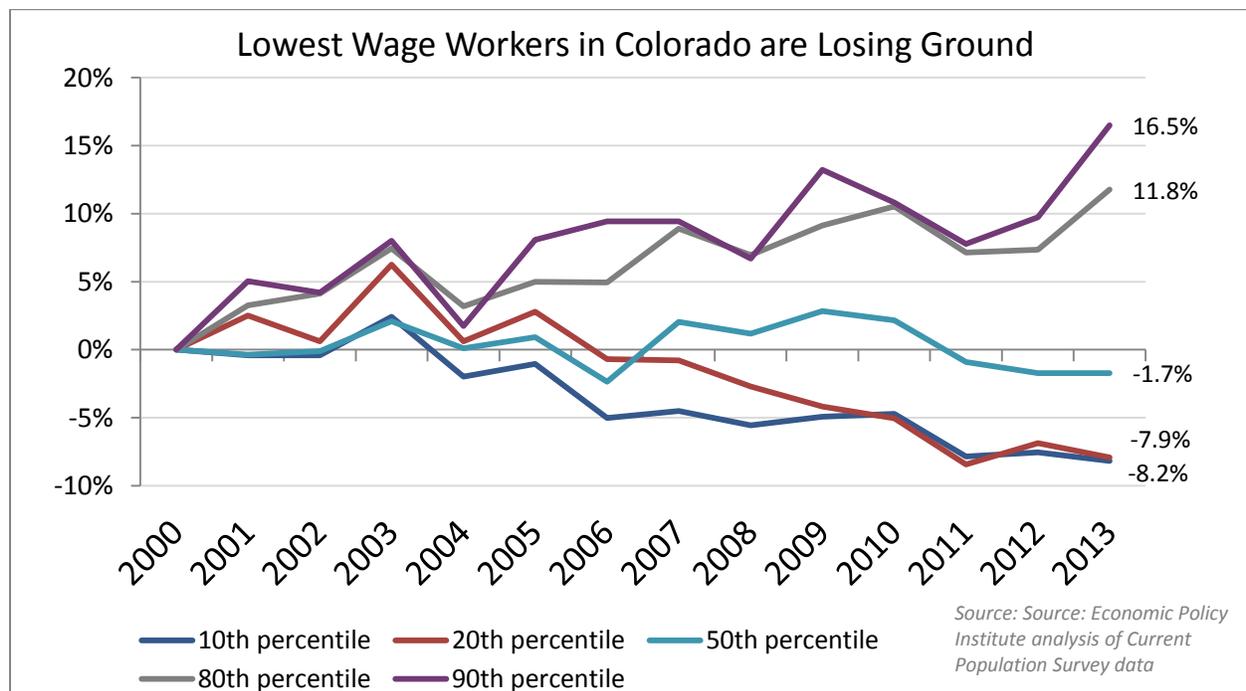


Figure 6 shows total employment and low-wage employment by business size and by industry. Much of the jobs in the accommodations and food service industry are low-wage — 76 percent of accommodations and food service workers make less than \$12 an hour. More than half — 52 percent — of retail jobs in Colorado pay less than \$12 an hour. And, 49 percent of jobs in the arts, entertainment and recreation industry pay less than \$12 an hour.

Figure 6: Low Wage Jobs by Firm Size and by Industry (Private Sector)

Industry	Total Workers	Workers at 250+ employee firms		Workers earning less than \$12 an hour		250+ and less than \$12 an hour	
			%		%		%
AGRICULTURE, FORESTRY, FISH/HUNT	16,044	1,575	9.8%	8,209	51.2%	806	5.0%
MINING	34,262	11,822	34.5%	-	0.0%	-	0.0%
UTILITIES	7,954	1,715	21.6%	-	0.0%	-	0.0%
CONSTRUCTION	146,395	16,132	11.0%	14,705	10.0%	1,620	1.1%
MANUFACTURING	136,571	50,782	37.2%	22,838.49	16.7%	8,492	6.2%
WHOLESALE TRADE	100,711	12,164	12.1%	13,808	13.7%	1,668	1.7%
RETAIL TRADE	257,733	26,030	10.1%	134,333	52.1%	13,567	5.3%
TRANSPORTATION & WAREHOUSING	64,867	24,350	37.5%	10,498	16.2%	3,941	6.1%
INFORMATION	70,076	31,202	44.5%	5,805	8.3%	2,585	3.7%
FINANCE & INSURANCE	103,301	33,985	32.9%	9,753	9.4%	3,209	3.1%
REAL ESTATE RENTAL & LEASING	44,468	1,137	2.6%	11,168	25.1%	286	0.6%
PROFESSIONAL & TECHNICAL SVCS	195,208	36,643	18.8%	11,486	5.9%	2,156	1.1%
MANAGEMENT OF COMPANIES & ENTERPRISES	35,309	13,054	37.0%	103	0.3%	38	0.1%
ADMINISTRATIVE & WASTE SERVICES	158,351	51,331	32.4%	56,893	35.9%	18,442	11.6%
EDUCATIONAL SERVICES	30,290	6,214	20.5%	3,190	10.5%	654	2.2%
HEALTH CARE & SOCIAL ASSISTANCE	259,912	78,944	30.4%	54,662	21.0%	16,603	6.4%
ARTS, ENTERTAINMENT & RECREATION	51,614	12,695	24.6%	25,242	48.9%	6,209	12.0%
ACCOMMODATION & FOOD SERVICES	257,363	15,407	6.0%	194,926	75.7%	11,669	4.5%
OTHER SERVICES	73,457	2,705	3.7%	25,086	34.2%	924	1.3%
Total	2,043,884	427,885	20.9%	602,708	29%	92,868	4.5%

Source: CFI analysis of Occupational Employment Statistics from BLS and Firm Size Data from Colorado Department of Labor and Employment

Colorado taxpayers pay the cost of low wages

Work that pays too little isn't just a struggle for people trying to get by and a drain on the economy. It's also a free ride for employers because taxpayers foot the bill for the public assistance people need when their jobs don't pay enough to make ends meet. Colorado provides public health insurance through Medicaid for Coloradans whose income is below a certain level. Colorado Medicaid is funded jointly by the state and the federal governments.

In 2014, Medicaid in Colorado cost \$5.8 billion, with \$3.5 billion coming from the federal government, \$1.7 billion from the state budget's General Fund and another \$550 million from other state cash funds.

Of the \$1.7 billion in Colorado state tax dollars spent on Medicaid in 2014, \$304 million went to covering low-wage workers or their children. That is \$304 million that wasn't available for schools, colleges, child protective services, transportation and other important state priorities. It is money that could have gone for those things if more Colorado employers paid their workers enough to get by.

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Methodology

Data Sources

American Community Survey Public Use Microdata Sample (PUMS)

American Community Survey PUMS offers data that explains much about low-wage work. The survey does not ask a “wages per hour:” question. But it does ask about “wages or salary income in past 12 months.” With a combination of two other variables, wages per hour can be derived using “Usual hours worked per week in past 12 months” and “Weeks worked during past 12 months.” An additional step is required to translate categorical variables to continuous. For example, if a survey respondent reported working 50 to 52 hours each week, which was translated into a continuous variable of 51 hours a week.

The 2013 PUMS data set for Colorado had 52,107 samples. Among them were 7,827 low-wage workers, derived from taking out anyone under 15 years old, not working, or working and making for than \$12 an hour.

Current Population Survey Data

Current Population Survey data is used in this report to track declining wages over time. We utilize the Economic Policy Institute’s analysis of Current Population Survey data to look at wages by decline. Wages are adjusted for inflation using the CPI-U-RS.

Occupational Employment Statistics from Bureau of Labor Statistics

The May 2013 Current Employment Statistics data was the most recently available at the time of this report. “Low-wage” jobs were categorized as those whose median wage was less than \$12 an hour.

Quarterly Census of Employment and Wages from Colorado Department of Labor and Employment

There is no single data source that both reports wages and employees by business size. So, a combination of two data sets was used. The Colorado Department of Labor and Employment provided private industry firm size data from June 2014 data. Because of the Colorado Employment Security Act and BLS guidelines, some data was not disclosed. We used extrapolation from aggregate state data for all industries to estimate the missing values. In order to calculate what portion of each industry makes less than \$12 an hour, Occupational Employment Data was used. In this data set, 10th, 25th, 50th, 75th and 90th percentile wages are reported by industry and by occupation code. Linear interpolation between the reported percentiles was utilized to estimate what percent of wages in each industry and occupation made less than \$12 an hour. The percentages of the entire industry that are low-wage were applied to the firm size data by industry.

For example, there are 16,132 jobs in the construction industry at firms with more than 250 workers and approximately 10 percent of the construction industry earns less than \$12 an hour. So we took 10 percent of the 16,132 jobs to get 1,620 low wage construction jobs at firms with more than 250 employees.

Calculating the cost of Medicaid for workers in low-wage jobs in Colorado

Both the Colorado Health Access Survey and the American Community Survey PUMS data were used to determine what portion of Medicaid recipients work or, in the case of children, live in households where parents work. “Working” was defined as working at least 20 hours a week for adults and for children it was living in a household in which both parents work or in a single-parent household where that parent works. To narrow down the ACS to the unique Medicaid enrollment categories in order to find what portion of each population worked, the variables “usual hours worked per week in past 12 months,” “age,” “disability,” “Income-to-poverty ratio,” “gave birth to child within past 12 months” and “Medicaid, Medical Assistance, or any kind of government-assistance plan for those with low income” variables were utilized.

The Colorado Health Access Survey reported that 11.2 percent of children on Medicaid had both parents working and 61.6 percent of children had one parent working. The survey did not distinguish between one parent working from a single-parent household and one parent working from a two-parent household. The variable “family type and employment status” from ACS PUMS was used to determine how many households with children below 138 percent of the Federal Poverty Line were single-working single-parent households and single-working two-parent households. In that group, 58 percent were single working parents. We combined the portion of children on Medicaid with both parents working plus the portion of children in a single parent household with that parent working. $11.2 \text{ percent} + (0.58 \times 61.6 \text{ percent}) = 47 \text{ percent}$.

Table 7 details that calculation of Medicaid expenditures paid from the General Fund and share of each enrollment category that works to calculate the total cost to taxpayers of workers in low wage jobs on Medicaid.

The initial calculations assumed that working Medicaid recipients had similar medical expenses to the average recipient in each enrollment category. This would have overestimated the cost since full-time workers are more likely to be healthier with fewer medical expenses than those not working. This is particularly true for workers older than 65 since they don’t have medical expenses as high as the rest of the 65-plus enrollment category (who are more likely to be in a nursing facility or have a disability). For example, the average per capita cost of a Medicaid recipient in the 65-plus category is \$25,323. To calculate the per capita cost of those working in the 65-plus category, this analysis assumed that working Medicaid recipients 65 or older had 40 percent of the average cost in that category. This estimate did not include any costs from working disabled Medicaid recipients.

Because there are unique FMAPs (Federal Medical Assistance Percentage) for particular services inside different Medicaid populations, and various services are covered out of cash funds instead of state general funds, once federal dollars were backed out, some cash funds were also backed out. This had the effect of reducing the final calculation to \$304 million from \$312 million.

Table 7 Calculating the Taxpayer Cost of Medicaid for Workers in Low-Wage Jobs in Colorado

Medicaid Enrollment Category	Enrollment FY14-15 (a)	Expenditures FY14-15 (b)	Share Working (c)	Share of Expenditures From General Fund*	GF \$ to Working Medicaid Recipients (d)
Adults 65 and Older	42,087	\$ 1,065,767,680	5.8%	49%	\$ 12,174,989**
Disabled Adults 60 to 64	10,581	\$ 214,343,136	7.7%	49%	\$ -
Disabled Individuals to 59	66,821	\$ 1,129,849,096	12.5%	49%	\$ -
Disabled Buy-In	3,425	\$ 38,808,543	100.0%	0%	\$ -
MAGI Parents/ Caretakers to 68% FPL	163,685	\$ 562,386,705	13.0%	49%	\$ 35,999,498
MAGI Parents/ Caretakers 69% to 100% FPL***	32,969	\$ 87,713,738	19.3%	0%	\$ -
MAGI Parents/ Caretakers 101% to 133% FPL***	37,932	\$ 100,917,957	17.9%	0%	\$ -
MAGI Adults	240,362	\$ 1,234,908,166	42.9%	0%	\$ -
Breast & Cervical Cancer Program	379	\$ 6,083,145	19.3%	0%	\$ -
Eligible Children	448,326	\$ 894,031,282	47.0%	49%	\$ 206,903,872
SB 11-008 Eligible Children	47,107	\$ 81,884,328	47.0%	34%	\$ 13,265,998
Foster Care	20,129	\$ 90,359,703	n/a	49%	\$ -
MAGI Pregnant Adults	14,883	\$185,104,156	41.7%	34%	\$ 26,606,853
SB 11-250 Eligible Pregnant Adults	1,751	\$ 19,141,817	41.7%	34%	\$ 2,751,443
Non-Citizens- Emergency Services	2,573	\$ 60,232,893	45%	49%	\$13,338,272.99
Partial Dual Eligibles	28,124	\$ 33,952,006	5.8%	49%	\$ 969,051
TOTAL	1,161,133	\$5,805,484,351			\$312,009,976

(a) FY2014-15 February Projections by Joint Budget Committee

(b) FY2014-15 February Projections by Joint Budget Committee

(c) CFI analysis of 2013 ACS PUMS data where working was working at least 20 hours a week for working age, and both parents worked for children in 2-parent households or that parent worked in single-parent households.

(d) each enrollment categories' expenditures multiplied by the portion working multiplied by the portion of expenditures from the General Fund.

*some Medicaid populations are funding via the Hospital Provider Fee and Medicaid Buy-in Fund and other cash funds; Also there are some unique FMAPS for certain services provided within these enrollment categories that make the State share slightly different than normal 50.76% FMAP. There are also certain populations that are entirely funded from federal dollars.

**per capita costs were reduced to 40 percent of average since working recipients have lower medical expenses.

*** data had these lumped together 69% to 133%, ACS data was used on proportion of individuals between 69-133% of FPL fell into the 69 to 100% category. 46.5% of those fell between 69 and 100%.

ⁱ Analysis of the BLS Colorado May 2013 Occupational Employment Statistics which report employment and wage estimates by industries including hourly and annual 10th, 25th, 75th, and 90th percentile wages. The 25th percentile wage was \$11.68 an hour. Linear interpolation was used between the 25th and 50th percentile wage to estimate what portion of workers made less than \$12 an hour.

ⁱⁱ Low-wage Workers Are Older than You Think: 88 Percent of Workers Who Would Benefit From a Higher Minimum Wage Are Older Than 20, One Third Are Over 40. Economic Policy Institute. Available from <http://www.epi.org/publication/wage-workers-older-88-percent-workers-benefit/>

ⁱⁱⁱ Change in output per worker adjusted for hours worked (Gross State Product/ adjusted employment).